

# Studio Strings

SPITFIRE - STUDIO STRINGS  
USER MANUAL

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# CONGRATULATIONS

Thank you for purchasing Spitfire Studio Strings. This product marks the first release of a vital all-new Spitfire Orchestra range. Our ambition was to create an incredibly versatile pro-end dry stage sample library. By choosing the crisp and vibrant setting of Air Studio One, a smaller, more controllable space than the opulent Lyndhurst Hall, we offer our fellow composers a string library with depth, detail and focus all at once. One that will work on anything from passionate period dramas to modern Scandi noir. It's a fit for quirky indie and crisp pop, but can also tackle epic film and game scores.

## Quick Specs

- 13.2 GB DISK SPACE REQUIRED
- 26.4 GB DISK SPACE REQUIRED DURING INSTALL
- NKS Ready
- Compatible with Native Instruments hardware
- Free Kontakt Player Included
- Minimum Kontakt Version 5.6.8
- Intuitive GUI with inline help
- Essential microphone (T)
- Detailed sampling:
  - Multiple Instruments
  - Multiple Articulations
  - Multiple dynamics
  - Multiple round robins
  - Release Triggers
  - True Legato

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# PRECAUTIONS

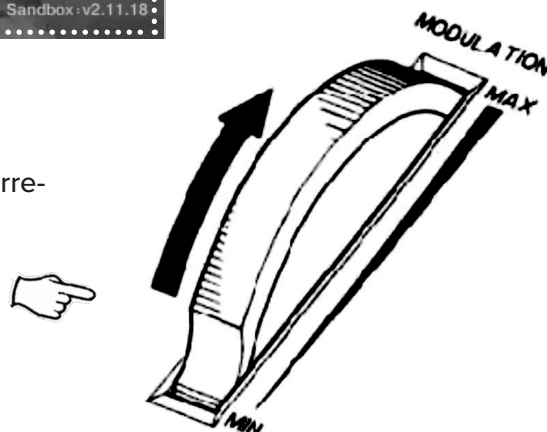
If you've never used a Spitfire instrument before there are two very basic principles to grasp. Once you've got these, you'll be up and running and ready to go. By all means read on, but the first two rules are:



TOP TIP: The little 'i's on your GUI are 'in-line' help. Click on these to find out stuff.

1.) Use these switches to change the articulations. They also correspond to keyswitches on the very bottom of your keyboard.

2.) On long notes make sure you always use your modwheel



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# WELCOME

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## THE NEW CHAPTER

This new set of orchestral libraries, two years in the making, has all of the treasured Spitfire hallmarks: A-list London session players, priceless instruments and an unparalleled signal path recorded to tape by Grammy award-winning engineer Simon Rhodes. As with our existing symphonic and chamber ranges, we have applied a “no stone unturned” approach: an encyclopedia of articulations (playing styles), vibrato control, numerous dynamic layers and round-robins for seamless, nuanced realism.

Our new Studio Strings package is a medium chamber (or small symphonic) ensemble recorded by section (1st violin, 2nd violins, violas, cellos and double basses), and is available in two versions: Spitfire Studio Strings, and the more extensive Spitfire Studio Strings Professional.

## THE CORE

The Core version takes you straight to the heart of our most pristine orchestral library to date: 148 articulations across the full 30-piece string section (8.6.6.6.4), from soaring legato and our signature whispering super-flautando, right down to spiccato, hairpins, grace notes, and fx. Immediately usable, instantly compelling.

## CORE & PROFESSIONAL

Spitfire Studio Strings takes you straight to the heart of our most pristine orchestral library to date: 148 articulations across the full 30-piece string section (8.6.6.6.4), from soaring legato and our signature whispering super-flautando, right down to spiccato, hairpins, grace notes, and FX. Immediately usable, instantly compelling.

The Professional edition offers all of this and more, opening the door to peerless detail and control — 5 extra mics, 2 extra mixes, large band (16.12.12.12.4) and two divisi sections.

We were determined to go the extra mile and offer divisi (half sections) in the Professional library, which empowers a new level of modular control. Your string orchestra is now configurable from the fibrous intimacy of dual four-piece 1st violin sections, three-piece 2nds, three-piece violas and three-piece cellos (4.3.3.3) up to the rich power of 16.12.12.12.4 — a combination of the main sections (including basses) plus two divisi. In addition to an all-embracing 232 articulations, you can access and personalise your mix of the full microphone armoury of Simon Rhodes — six different setups, from pin-sharp to super-wide, picked up by the best from Neumann, Schoeps, Sennheiser and others.

## SIMON RHODES

Simon Rhodes was an obvious choice for our entirely new Studio Orchestra range — a microphone magician with multiple Grammy awards to his name, and a senior engineer at Abbey Road Studios. Simon has worked at the highest level in film score recording, having been James Horner’s go-to engineer for 18 years. Blockbuster movies such as Avatar, Skyfall and Spectre have also had the Rhodes treatment.

“For the Spitfire Studio Strings sessions, I used one of my tried and tested approaches to smaller rooms, but have incorporated layers and options by using a variety of microphone setups — right down to that very close, Eleanor Rigby sound.”

You can choose Simon’s mix, or with the Professional edition of the library, customise from the various mic options, from close to ambient, as well as two ‘Tree’ setups, both using Schoeps microphones. “The second uses Schoeps MK 21 wide cardioids (or sub-omnis), which are great for keeping the room sound at bay while allowing you to get a sense of distance and perspective. This was especially important for our prized divisi recordings, where we recorded different sets of players in separate chairs, divided between inside and outside desks.”

*“With a touch of reverb on,” says Simon, “this library is going to sound very lush and beautiful, but at the same time keep hold of all the detail.”*

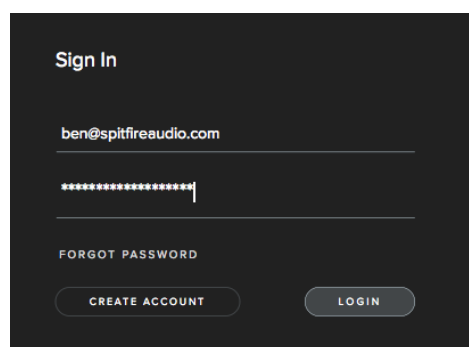
Spitfire users now have a comprehensive range of orchestral manoeuvres. We believe Spitfire Studio Strings suits users of our existing Lyndhurst Hall ranges as an essential sonic alternative. It is also perfect for those looking to buy a strings library that will give them the most bang for their buck — usable in the widest range of musical settings, ready for your own favourite reverbs and FX. With the versatility we have engineered into this library, we have no doubt that Spitfire Studio Strings will be a cherished part of your music-making over the next decade.

# DOWNLOADING & INSTALLING

Thank you for buying Studio Strings. If you are a total newbie to this kind of thing you can get up to speed here: <http://www.spitfireaudio.com/info/basics/>

First though, grab the 'Spitfire Audio App' from this link: this app will enable you to download the library <http://www.spitfireaudio.com/info/library-manager/>

## THE SPITFIRE AUDIO APP

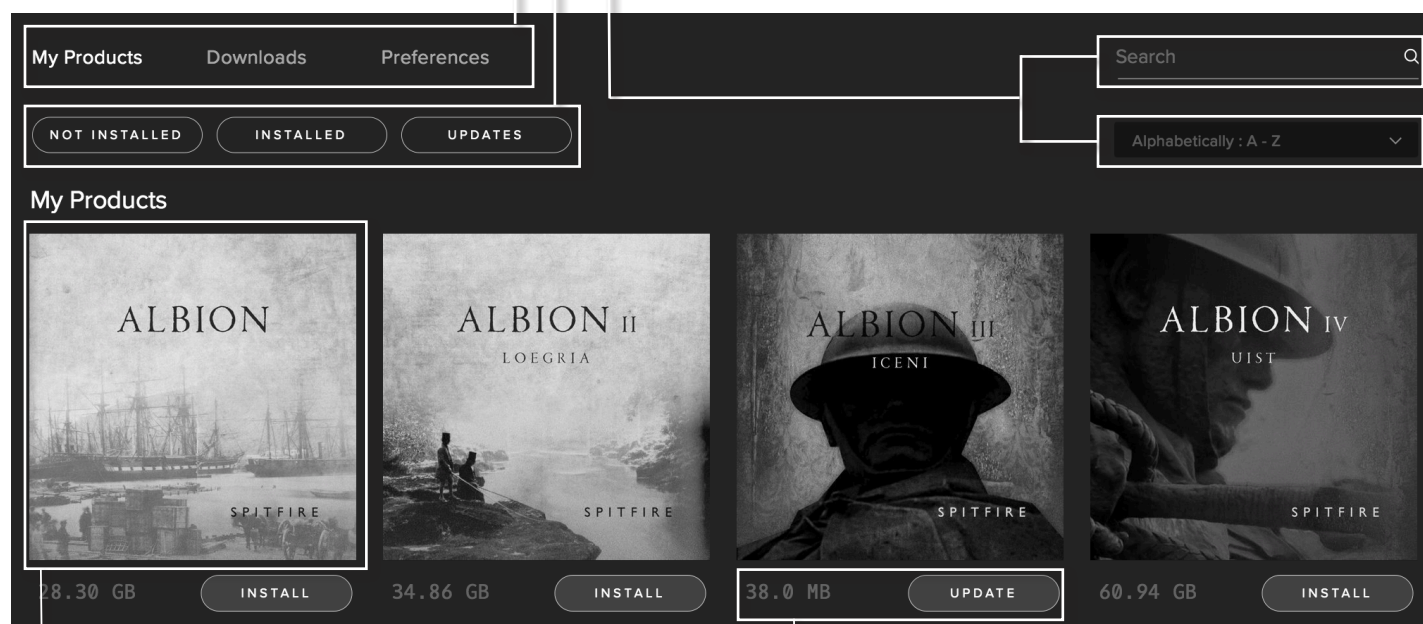


When you launch the app you will be prompted to login using the same details you use at our site. Then you'll see the page pictured below:

**TABS** the default tab is **My Products**, which shows all of the libraries on your Spitfire Account. **Downloads** will show currently downloading products and **Preferences** allows you to set default locations and behaviours as described on the next page.

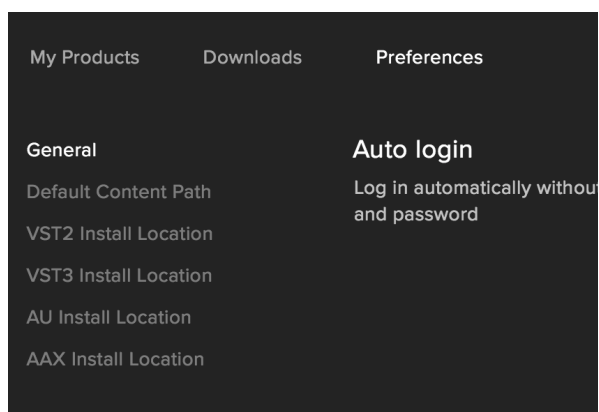
**FILTERS** clicking these filters will quickly display products you've yet to install, those already installed, and any available updates. Clicking again will remove the filter.

**SEARCH** and **SORT** allow you to quickly navigate through your collection and arrange your collection either by size or name.



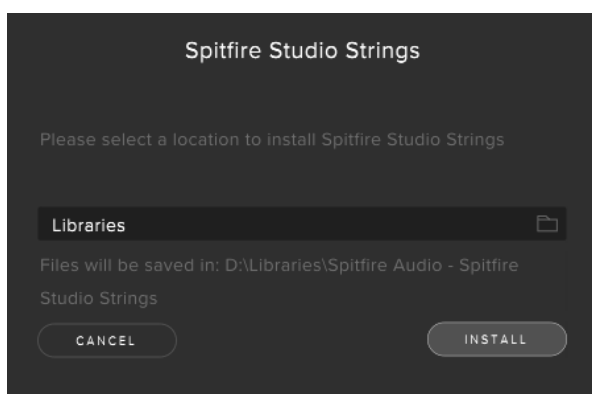
**LIBRARY** All libraries and plugins in your collection will appear with their artwork on the **My Products** tab. Clicking this artwork will open the product page. This is a great place to find information such as system requirements and instructions as well as where to find **Reset** and **Repair** options.

**INSTALL/UPDATE** buttons allow you to quickly start a download directly from the **My Products** tab, instead of clicking through to the **Library**. Next to the button the size of the download is shown, you will need twice as much available space to allow the download to unzip correctly.



If this is your first time using the Spitfire Audio App for a download you may wish to first navigate to the Preferences tab and make sure that the Default Content location is set to the location where you wish to download your libraries and that the VST2 install location is set to the folder where your DAW expects to find VST files.

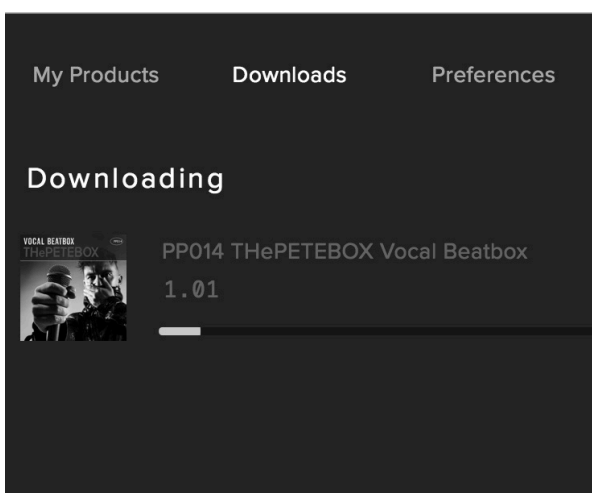
Here you can also enable Auto Login to save time in future.



Once you are happy with your preferences, simply click the Install button, either directly on My Products tab, or by clicking on the library image you wish to install and then clicking the install button on the page that appears.

Clicking either of these will prompt you for a location, the default content location in your preferences will be suggested but you can select any suitable location.

Once you are happy with the location click Download.



After clicking download you will be directed to the Downloads tab where you can watch the progress if you like. You can of course leave the Downloads tab and start other downloads but at this point you should leave the Spitfire App open until the download completes.

As this is a Kontakt player library, once it is downloaded you will need to activate it by following the steps on the next page.

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# REGISTERING WITH KONTAKT PLAYER

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If you've never used one of our libraries before and you don't own a copy of Native Instruments Kontakt, you'll need to download the free "Kontakt Player" here:

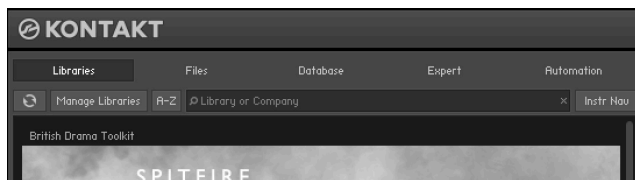
<https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/downloads/>

If you'd like to find out more about the differences between Kontakt and Kontakt Player) go to *Appendix A*.

If you'd also like to know what we recommend as an optimal set up please go to *Appendix B*.

1. Install Kontakt Player (skip this step if you already have it)

2. Open the player (or Kontakt 5 full version if you have that) and click **manage libraries** in the library browser window, then click **Launch Native Access** in the window that opens:



3. Once you have opened Native Access, click **Add Serial** in the top left of the window.

4. Enter the serial number in this format:

XXXXX-XXXXX-XXXXX-XXXXX-XXXXX

...It can be found in your 'ready to download' email.

5. You will then be prompted for the location where you unzipped the library. Simply navigate to and select the library folder, in this case: the 'Spitfire Audio - Spitfire Studio Strings' folder that contains your library's instruments and samples folders, and also contains the 'nicnt' file

6. Your library is authorised. If the library does not add to the libraries pane, or disappears when you re-open Kontakt, see *Appendix E - Troubleshooting and common problems*

If you have never used Kontakt before we wholeheartedly recommend that you familiarise yourself with the basics of patch (or instrument) loading, multi management, outputting and midi routing detailed in the Kontakt user-manual and native instruments website:

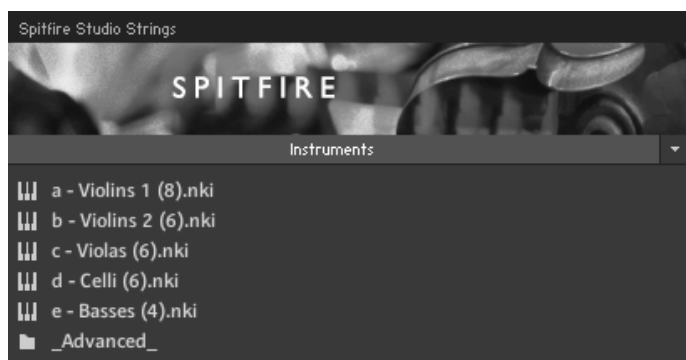
<https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/downloads/>

If you are an established Kontakt user please make sure you absolutely have the latest version of it downloaded via the NI service centre or the NATIVE ACCESS apps. Our libraries are frequently updated and often simply won't work on any previous versions. We cannot describe the multitude of painful symptoms you will experience if you don't do this!

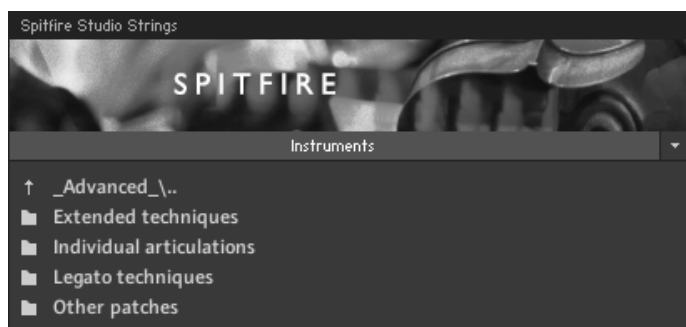
For more information about NKS and integration with Native Instruments hardware controllers and keyboards please checkout their online instructions:

<https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/downloads/>

# FOLDER STRUCTURE



When you select the 'Instruments' bar you will see that you have a 'basic' startup palette for each instrument. These are the main basic patches which contain a selection of curated 'work horse' articulations.



If you click the 'Advanced' bar to expand it you will see that your instruments fall into 4 categories. You can double click the folder name to open that folder. Double click it again to go back up a level in the folder structure.

**Extended Techniques** - contains 'core' and 'decorative' techniques for each section and can be viewed as the next stage in detail up from the 'basic' patches.

**Individual Articulations** - each separate articulation in its own patch.

**Legato Techniques** - these monophonic patches rely on you playing the notes 'joined up' so it can fill in the joins for you for super realism. Especially popular with single solo top lines.

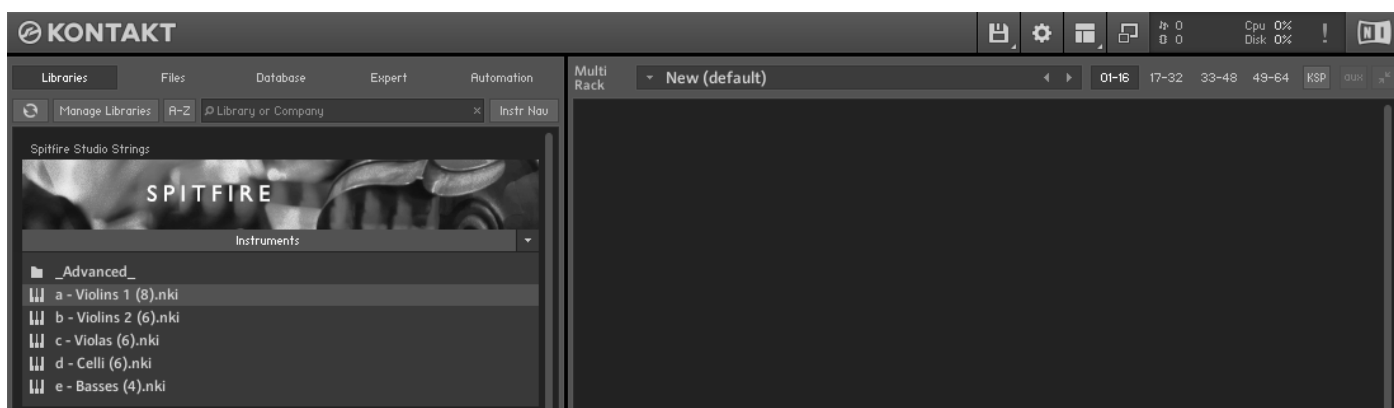
**Other Patches** - Have another three sub-folders:

**Economic** - A pre-curated smaller selection of articulations which won't break your RAM bank.

**Light** - Stripped back articulations that reduce the stresses on your CPU.

**Time Machine** - These patches contain all of the short articulations fully loaded into RAM so that you are able to vary the length of the short notes via CC.

## OPENING YOUR FIRST INSTRUMENT.



Simply double click an 'nki' file (this is Native Instruments' file extension for a Kontakt instrument) to load, or indeed drag the instrument (it'll have the little keyboard icon and the suffix .nki) from the left pane into the right pane.

If you can't hear anything double check first that the midi channel you are transmitting on with your keyboard is the same as the one in the Kontakt Instrument!



# A QUICK LOOK

## SWITCHING VIEWS



All GUI controls can be assigned a unique controller number so you can automate or adjust via an external controller (vital when playing in virtual Orchestral parts). To un-assign, assign or just to see what CC number is assigned to any control RIGHT or CTRL CLICK.

You can then alter the controller parameters in the “Automation pane” if for example you want your mod wheel to go all the way from top to bottom but the control to have restricted bandwidth change from the default of 0-127 to 20-100. Or if you want the controller to make the GUI control in the reverse direction change from the default of 0-127 to 127-0.

When you first load up a Studio Strings preset you'll be greeted with this GUI. This is one of 3 pages that you can switch between using the panel switcher...



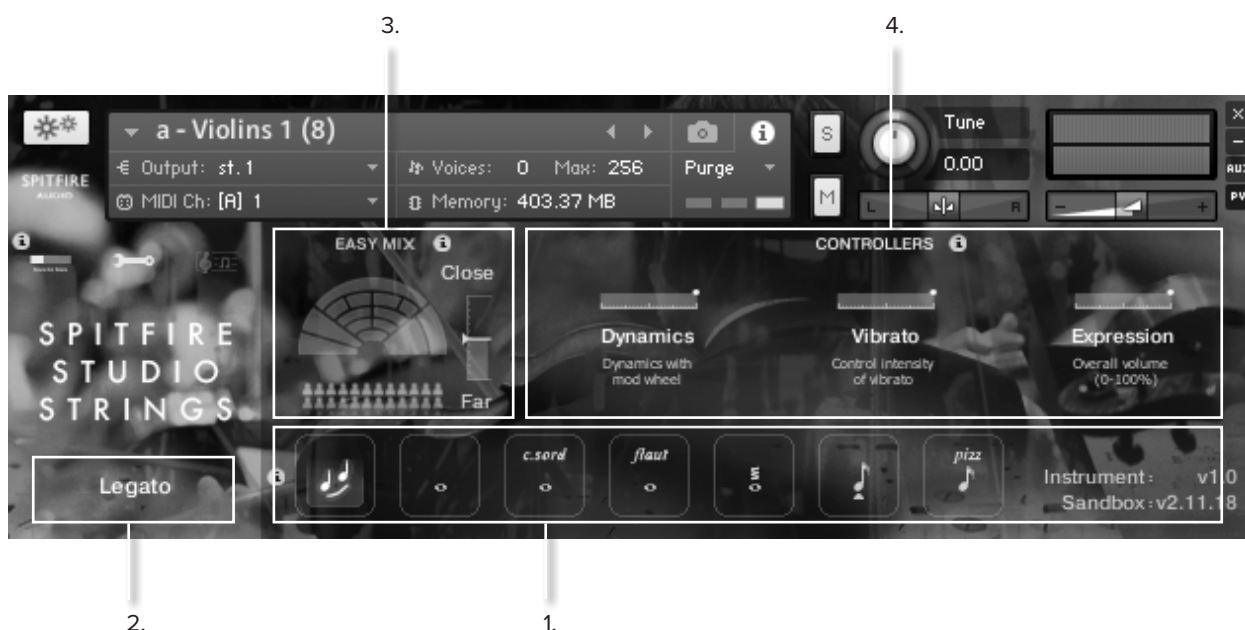
Click on these to switch views or pages:

1. General Overview (the view shown above)
2. Expert View
3. Ostinatum.

All of which are discussed in more detail over the next few chapters...



# THE 'GENERAL OVERVIEW' PANEL



## 1. ARTICULATION SWITCHER

These icons denote key articulations, display the current articulation playing and act as switches between them (alongside their associated keyswitches at the bottom of your keyboard).

If what you're playing stutters, or feels delayed or cuts out make sure everything is loaded, as some of these articulations are very deep sampled.

### LOAD STATUS:



Make sure Kontakt displays the instrument load status as pictured. If the left hand bar is illuminated and red it's in a queue and hasn't started loading yet, if the middle bar is lit and yellow the instrument is still loading up. If you try to play before it's loaded it may not be nice!

**ARTICULATIONS** - Click on these notes to select the different articulations, whatever articulation is live is displayed in the yellow sidebar on the left. You can also select different articulations by hitting key switches, you can do this whilst you're playing so if you want to switch from a "long" articulation to a short, hit the key whilst you're playing your last long and the next note will be a short. For details of articulations recorded go to Appendix A.

**POWER TIP:** SHIFT > CLICK to select and play multiple articulations!

## 2. SIDE BAR

Tells you what articulation you're playing.

## 3. EASY MIX

The orchestra was recorded with several different mic perspectives. Move this slider up or down to change the perceivable distance from the band. NB: the first time you use this it will need to load in the samples, so give it a moment!

## 4. EXPRESSIVE CONTROLLERS

**Dynamics** - probably the most important controller you have. This crossfades between the different dynamic layers recorded.

**Vibrato** - where appropriate this crossfades from no (or senza) to lots (molto) vibrato.


**Release** - allows you to change the amounts of release trigger that you hear.


**Tightness** - the start of a note is often not the start of the 'sound' of the instrument. This cuts further into the note to make it tighter. But does detract from realism. Worth tightening up when playing in, then loosening and putting a negative delay into your DAW to compensate for ultimate reality!


**Expression** - This is instrument trim (CC11), so this adjusts the volume within the instrument volume (CC7) great when used in conjunction with expression.


# INSTRUMENTS


Welcome to the wonderful world of orchestral strings. Here's a quick crib sheet of the instruments that we've recorded with some quick facts. We've curated ranges that fit within the reasonable demands of professional players in London. If you're looking for further reference sources for string writing we recommend 'Orchestration' by Walter Piston, and 'The Study Of Orchestration' by Samuel Adler, which both have a very easy "at a glance" approach to taking you through the orchestra.

1st Violins (or Vn)	G3	C#7	8 players
Usually the largest of the string sections with the widest expected range. They sit to the left of the conductor and their principal player is referred to as the orchestra 'leader'.			
			

2nd Violins (or Vn)	G3	C#7	6 players
Exactly the same instruments as the 1sts, but in a slightly more 'supportive' role sitting to the right of the 1sts and next to the violas			
			

Violas (or Va)	C3	F#6	6 players
Similar in shape, but much larger in size than a violin. These sit straight ahead and slightly to the right of the conductor. They often play the simpler more 'pedalling' harmonic lines.			
			

Cellos (or VC)	C2	Bb5	6 players
Arguably the most versatile of the string instruments with a huge range from very low to heartbreaking highs. They sit to the right of the conductor and in front of the basses			
			

Basses (or CB)	C1	F#3	4 players
Huge and monstrous instruments that sit to the right of the conductor and behind the cellos. CBs recorded for Spitfire all had the low C extension, hence the range.			
			



A.



B.



C.

Violins read from the Treble clef (A.), Violas from the 'Viola' or 'Alto' clef (C.), and finally the Cellos and Basses play from the Bass clef (B.). It is worth noting that the Basses will sound an octave lower than written. Want the Cellos and Basses to play in unison octaves? Give them both the same music and it will happen!

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# ARTICULATIONS

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The following is an explanation of all of the terms used when naming our 'articulations' in the library. (An Articulation is basically a way of playing the instrument, captured as a standalone 'patch' like you might have on a synth.)

## LONG ARTICULATIONS

### LEGATOS

Legato in the context of a sample instrument refers to the technique of capturing the sound of an instrument moving from one note to the next. Capturing this detail is extremely beneficial in adding realism, but also means that you will need to play monophonically. There are currently 2 types of sampled legato in Studio Strings:

'Fingered' - this is the standard form of legato: simply adding or removing a finger on the left hand while the bow continues without change.

'Portamento' - This is a sliding transition from one note to the next. This is achieved by literally sliding the finger on the fingerboard. It is necessary on larger intervals to cross the strings as well.

### NORMALE

This is the most vanilla of the 'long notes' we have recorded. The basic standard playing style, recorded with and without vibrato, and sometimes with 'molto vibrato' or a lot of vibrato! Occasionally you'll see 'senza vib' which means 'without vibrato'. You'll sometimes see 'dolce' which means 'sweetly' and this refers to a tasteful amount of vibrato. You can use the Modwheel, or a slider set to CC1, to control the 'dynamic' of the sound, this smoothly crossfades between very soft (or 'pp') recordings, through to very loud (or 'ff'). Also you can use a slider set to CC21 to control the amount of vibrato, smoothly crossfading between no vibrato all the way up to the maximum vibrato.

### FLAUTANDO

This refers to a soft 'flute-like' way of performing on a stringed instrument. Often the bow will be near or over the fingerboard, which gives a very different character to the sound from the usual bow position. Sometimes we describe this to the players as 'harmonic like' and this gives them a steer toward a more 'glassy' and delicate, often non vibrato sound.

### HARMONICS

If the player holds down lightly on the string a perfect 4th interval up from the note they are fingering, you hear what is called an 'artificial harmonic' sound - two octaves up from the note being fingered. This is called 'artificial' to distinguish it from the natural harmonic series of the open string. These 'natural' harmonics can be heard by moving the finger up and down the string lightly while bowing.

### CON SORD

This is short for 'con sordino' which means 'with the mute'. A small rubber mute is attached onto the bridge, and this has a damping effect on the strings, that produces an extremely beautiful sound. This is softer than the 'open' sound, but still very dynamic in range

### SUL PONT

Short for 'sul ponticello' - meaning 'on the bridge' - here the player bows very close to the bridge which produces a brittle and edgy sound, always reminding us of nails on a chalk board!

### CS BLEND

A very beautiful sound - we asked the players to divide themselves 'by desk' and half of them to apply their mutes. So, of a 'desk' of two players, one will be muted, and one 'normale'. This gives you the beauty of the Sordino sound, with the full body of the unmuted sound. A great combination!

### SUL TASTO

Playing with the bow over the fingerboard, to produce a thinner more delicate tone. This is different from 'Flautando' in that it is not specifically required to be 'flute like' or 'harmonic like' and therefore is more of a very very soft delicate but yet 'normale' sounding tone.

### SUPER SUL TASTO

Taken to the extreme! The players asked to play as softly as humanly possible, so that a large proportion of the sound is the lovely 'hiss' of the rosin on the bows. A very exciting and delicate sound.

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# ARTICULATIONS (CONT.)

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## SHORT ARTICULATIONS

### SPICCATO

Spiccato techniques can create extremely heated discussions! For Spitfire, we define our Spiccs as having a nice very tight sound, with the bow bouncing on the string. This creates a sound that can be used either as a nice short staccatissimo, but also as part of a sequence of fast short notes.

### BRUSHED

A more delicate sound, brushing the strings with the bow in a leisurely fashion, that reminds us of soft baroque period playing

### PIZZICATO

Plucking the strings with the finger.

### PIZZICATO BARTOK

In this technique, the player plucks so hard that the string 'snaps' back onto the fingerboard producing a characteristic percussive noise almost like the 'col legno battuto' sound. To be used sparingly unless you want your players to all develop blisters!

### HARMONICS

The short version of the artificial harmonic described earlier in the Long notes section.

## TRILLS AND TREMS

### TRILLS (Min 2nd, Maj 2nd, Min 3rd, Maj 3rd, Perf 4th)

A Trill is where the player alternates between two notes with the left hand very quickly, we've recorded a number of options for this interval. These can be used as accented performance embellishments, or you can play them very softly and create a lovely 'cloud' texture with them.

### TREMOLO

This Tremolo is where the player rapidly moves the bow while keeping the left hand fingering a single note. The effect is a shimmering one when played softly, and a very aggressive one when played loud. Unmeasured means that there is no particular rhythm to the bow, just 'as fast as possible'

### TREMOLO MEASURED

These are played strictly to a tempo, as sixteenth notes (or 'semiquavers'). You can lock these to tempo on the GUI so that they will be in time with your piece. You can use them in a lot of different ways, one way is to perform a sequence of 8th notes ('quavers') with them, and if you get the timing right you'll hear that very characteristic 'John Williams' style that produces a 'scattery' effect and can be incredibly exciting in a track

### FX

A collection of various FX, from slides through to unusual 'chattering' and 'cluster' sounds. Have an explore through these patches!

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# BASIC ORCHESTRATION PRINCIPLES

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Whilst we wouldn't dream of trying to sum up the principles of orchestration in a single page of a technical user manual, we also understand that the choice can be overwhelming and therefore want to help you dive in as much as we can. The principle of electronic orchestration is simple. Traditional orchestration has evolved to get the best out of the instruments, so if you empathise with what an instrument can do best electronically, and in a way that sounds familiar, it will sound realistic and believable. There are no rules, save that of plausibility. So if you listen to good music and are honest with your own efforts, cast away pre-conceptions you may have built, and approach things with an open and experimental mind you'll be well on your way. If you're not familiar with each brass instrument and what does which best beyond "I like the sound of that". Then here are a few very general guidelines and principles, mostly conditioned from physics and what an instrument can do with a human at one end and some air (and spit) at the other.

**1. WHICH INSTRUMENT TO CHOOSE** - Strings tend to keep to a very strict pitch hierarchy, 1st, 2nd violins up top down to the basses at the bottom. So you'd rarely have an instance where you have violins playing a low-ish drone on G below middle C with the basses taking a top line above them. So the first thing to do is to work out who is playing what by how high you want the melody or top harmony to be coupled with how rich you want the rest of the harmony. If you want nothing but shimmering super high violins with a searing high cello melody great! But if you want that same melody in the same range to have a rich lower harmonic accompaniment you should probably reconsider using cellos as the melody makers.

**2. RANGE** - It is fair to say that the virtuosos, or rather the people expected to play virtuosic passages are the 1st violins and cellos. So you'll probably find both sound very familiar and comfortable. If you start writing lines that are in the gods (or very high) for violas and basses this will give you a less familiar sound, and arguably won't help the believability of your demos. HOWEVER the string players in an orchestra, play the most. They do the most film sessions, and sight read more than any other 'choir' (ie Brass & Winds). So don't think because it sounds high they won't be able to do it. String players have had to practise from a very early age, so they will be used to playing on the very edge of what is physically possible!

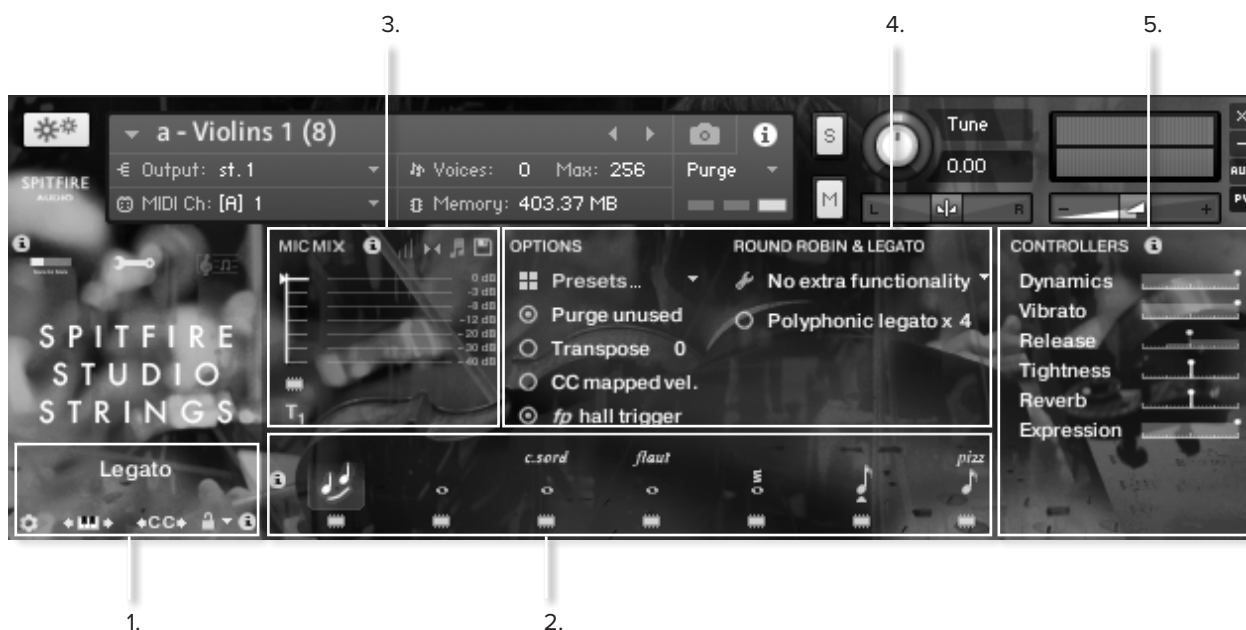
**3. AGILITY** - As with range you'll find the most demanding writing historically is for the 1sts and the cellos. But you'll probably find that all the violins and cellos will handle anything you throw at them. A lot of agility is down to simply what they're used to doing. So writing enormously complicated rhythmic ostinatos for just the violas may reap slightly more surprising results than having the violins play them. Conversely getting the basses to play a lead line using harmonics may be just what you're looking for, provided you're looking for something very... urm.... honest sounding? If you're writing super fast runs try and stick to scales, as this is what the players practise. When switching from arco (or with the bow) to pizzicato (or plucked) allow a good half bar for them to adjust, and don't be surprised if these are looser than you may expect. They're not easy! Conversely when switching to mutes (Con Sordino, Con Sord, or CS) allow them time or a re-take to do this.

**4. DIVISI OR NOT DIVISI** - When writing for strings it is always worth remembering that you really only have 5 'voices' to play with. If you write any more harmonic lines the sections are going to have to divide up or play 'divisi'. The result of this is a smaller, thinner, and quieter harmonic line. This is why sampled strings sound so massive; 'hey listen to me I'm playing a different note with each of my fingers it sounds HUGE!'. Well ofcourse it does, you're likely to be producing the noise a band of 200 players would make! But don't be surprised if on the day it doesn't sound as rich and fat. Which is why we always recommend getting samples to do what they do well (ie hold a high tremolando ad nauseum, or play complex pizzicato passages) so you can use your live forces for stuff that matters, like big sweeping melodies.

**5. OCTAVE DOUBLING** - Another very common technique is to have the 1sts and 2nds playing in octave unisons, it gives an emotional epic scale to top lines. It also helps each section tune against each other, which is why this can sound so strident and confident. Conversely basses usually play in unison with cellos albeit an octave down. You will find that doubling makes for less rich harmonic possibilities but with Symphonic strings the richness can be found in the sheer size of the band. Want a rich harmony between your bass and cello octave, well why not try a trombone or horn?

**1. KEEP AN OPEN MIND** - Strings are the most wonderfully versatile voice in the orchestra. We're proud to have captured so many of the nuanced articulations for SSS, so dig deep and try them out. A first step into more nuanced string writing can be con sordino or con sord. This is where the players use a practise mute. This gives a slightly less dynamic but silkier and more tender feel. If you feel that your rich high string lines are screaming hysterically as opposed to sobbing quietly in a corner., mutes could be the way to go, or try flautando (flute like) harmonics even, or a mixture of articulations. String players will rarely lambast a composer for trying something new and different, provided its playable.

# THE EXPERT VIEW

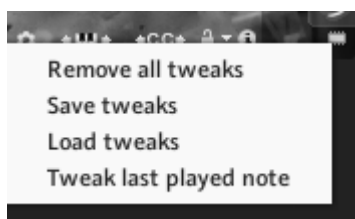


## 1. SIDE BAR

On the 'General Overview' page this simply displays the articulation being played. In the 'Expert View' there are some additional functions:



**1a. THE COG** - a. The Cog - Awesome tool for fine tuning & tweaking your presets.



- **HOW SHOULD WE TWEAK?** - Then your last note played will be displayed, if this is correct get tweaking.
- **SKIP THIS RR** - Will simply make it always jump along to the next round robin in the cycle.
- **ADJUST TUNE/VOL** - Will adjust the tuning and or volume of the last played note.
- **ADJUST RELEASE** - This will alter the level of the release trigger (which will affect the perceived decay of that note).
- **SAMPLE START** - If it feels loose adjust to the right, tight adjust to the left (NB this is only available in full "cog" patches).
- **REMOVE ALL NOTE TWEAKS** - This removes all custom changes you have made with the Cog.

**1b. "KEYBOARD SHIMMIER"** - This shifts your bank of keyswitches left or right to suit your needs, preference or performance. Simply click on the icon and drag your cursor left or right and you'll see the pink bank of keyswitches follow! Wherever you stop, those will be the new keyswitches.

**1c. "KEYSWITCH TO CC SELECTOR"** - Use this to assign a CC controller to act as articulation switcher. RIGHT or CTRL Click on "CC" and you can assign a controller to change articulations.

**1d. "ARTICULATION LOCKER"** - We all like to select articulations and use our templates in different ways. Many composers like to have a single articulation loaded to each instance of an instrument for example. So it's worth locking off the articulation switching once you've selected one so you don't have sounds disappearing from slaves way off in your machine rooms!

**Unlocked Artic'** - Is the standard setting, select articulations via the front panel or associated keyswitch.

**Locked Artic'** - This locks your articulation so it doesn't change either via front panel or keyswitch.

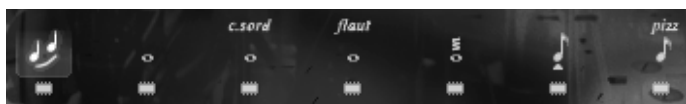
**Locked Keyswitch** - This locks your articulation via keyswitch but you're free to switch via the front panel.

**Locked to UACC** - This is a standard developed by Spitfire and detailed in appendix E. The default controller channel is #32 but this can be changed by right/CTRL clicking on the padlock.

**Locked to UACC KS** - The functionality of UACC with the flexibility of a keyswitch. When activated, a single keyswitch is available. Pressing this key at varying velocities (according to UACC standards) changes articulation.

**Shared Keyswitches** - In larger libraries, this setting allows you to spread keyswitches across multiple palettes of articulations.

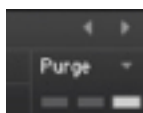




## 2. ARTICULATION SWITCHER

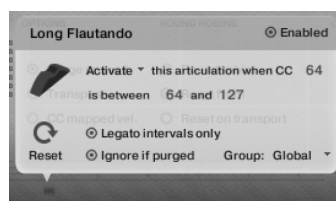
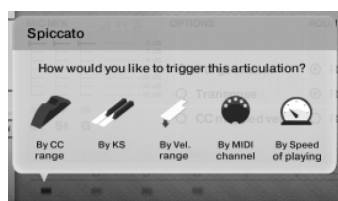
This works the same as it does in the 'General Overview' panel, with the addition of 'load chips' beneath each articulations. These load them in and out of memory as you wish... Remember before playing an articulation you've loaded in make sure it's fully loaded!

### LOAD STATUS



**LAYERING ARTICULATIONS** - To layer sounds within the articulation set simply 'SHIFT' click on your next articulation. Rather than introducing a multitude of more confusing 'layered articulation' options, the front panel shows (and edits) only the most recently layered articulation.

**TRIGGERING** - For triggering options CTRL or COMMAND click on the articulation icon:



**"By CC Range"** - This will allow you to use a single controller channel to switch between artics. This allows you to fine tune on your MIDI event list, or to use a midi controller fader or indeed button with a single range assigned to select your desired artic'. Our default setting is guided by our UACC protocol.

**"By KS"** - The default setting. This is scripted so it won't switch mid note but wait until the next note-on event before switching. This means you're able to play the key switch say whilst playing a long note and have it switch to a staccato on your next note.

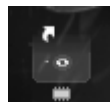
**"By Velocity Range"** - This is great for designing intelligent staccato patches that say become staccatissimo when you hit the keyboard really hard. A second menu will open up giving you options for this function.

**"By MIDI Channel"** - Ingeniously turns your single instance into a multi timbral instrument. MIDI channel lets the instrument change articulation based on the incoming MIDI channel. To use, pop the instrument Midi Channel to 'Omni' mode in Kontakt. The single instance can now be configured to play based on the incoming MIDI channel. For example. Set staccatos to channel 1, longs to channel 2, legato to channel 3.

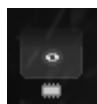
**"By Speed Of Playing"** - A revolutionary new function that allows you to switch articulations based on the playing speed of your performance. When selected, it provides options to specify a triggering time-range in milliseconds. (See right hand menu above). For example, you could specify that 'fast legato' should be activated if the time between playing each interval is between 0 and

250ms (pictured above). Fully configurable to suit the user's playing style and needs and can be deactivated by unchecking 'Enabled' (or if not in the artic switching screen, simply holding ALT and clicking the articulation icon on the stanza).

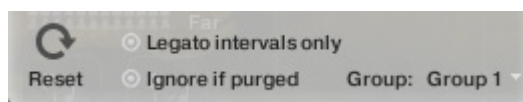
When an articulation has a 'trigger' assigned, it shows a little short-cut icon above to let you know that it has been customised.



Holding down ALT and clicking an articulation with this short-cut above it will toggle the trigger between enabled and disabled.



It's a handy way to quickly turn off legato speed/velocity switching if the user doesn't want it.



**TRIGGER PANEL** - Reset will clear the trigger for this articulation, allowing you to set it to a different type or disable it permanently. Legato intervals will only activate this trigger if the notes played are legato intervals. Ignore if purged means that this trigger will only occur if the articulation is not purged.

Group allows you to group together triggers. When set, the trigger only occurs when an articulation in the same group is currently active. For example, use this if you wanted to set up speed triggers on legato articulations, but don't want them to trigger if you have staccatos/marc/shorts selected.

Alongside switching your articulations manually by hand, via key-switch or via the advanced methods mentioned above you may also want to try a new system we've dubbed UACC (universal articulation controller channel). Whereby each and every possible style of articulation has been given a unique CC data number. Simply use CC#32 and the table found in Appendix E to see how this can work for you.

**POWER TIP:** Whilst there are many ways to switch between articulations, many pros still prefer to have a different articulation in a single instance per track on their DAW. This enables them to assign different reverb levels and bake helpful stems that can be used in conjunction with live instruments (to work like this it's best to load up artics from the individual articulations sub folder).



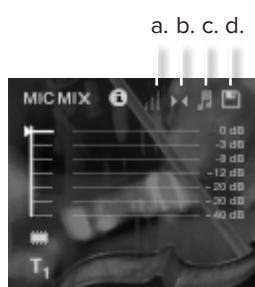
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## 3. MICROPHONE MIXER

Giving you greater control over the blends of microphone positions for your work.

Use the chips beneath the faders to load & unload different microphones and the faders above to tweak the balance of them. Turning a fader all the way down will also unload the mics, conversely turning the fader back up will reload. Right click on the faders to assign CC controllers so you can mix these live for fantastic shifts in the spacial nature of the samples. Left click on the mic letters to change Kontakt channel/output assignment.

On the top right of the mixer controller section are some deeper mixing options.

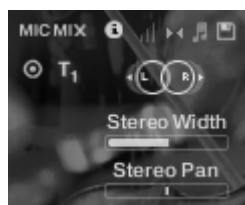


### 3a VELOCITY RESPONSE



Pick from 4 different velocity curves to suit your controller.

### 3b STEREO WIDTH AND PANNING



The mics are a stereo mix and this collapse allows you to refine how the stereo image is handled. All our musicians are recorded in situ, i.e.. where they would be seated on a standard scoring session, giving you a fantastic spectral spread when putting all the elements together, which helps define the detail. This panning tool helps you to manage and tweak this to your own tastes/ needs.

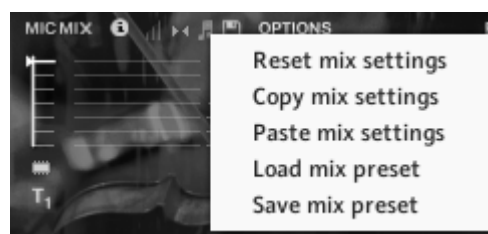
reaches. All the way to the right would be like having your two pan pots panned hard. All the way to the left would be like having both pots centre,

STEREO PAN - Then allows you to control where in the pan field the centre of this image is placed.

### 3c MIC MIX TO ARTICULATION LINKER

The small notation symbol locks the microphone mix or tweak you've made to the articulation selected. This means if you want to boost any perceived inconsistencies in volume between say pizzicato and col legno you can. Or indeed if you want to roll off some of the hall ambience for a short versus the long articulations this is how to fine tune.

### 3d MIXER PRESETS



A way to transfer mixer settings between patches, or save and load presets to disk.

**AUTOMATING MIXER FADERS** - Each mixer fader has a dedicated #CC. To change this to suit your MIDI controller or surface, simply RIGHT or CTRL click on the fader itself to "learn" the new controller.

**ROUTING MIC MIXES** - To route each mic mixer channel to unique Kontakt channels simply click on the mic letter. Great for putting your ambient mics in the surround for example. Also good for track-laying individual mics for your engineer to control in your final mix sessions.

STEREO WIDTH - Allows you to control how far the stereo image

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## 4. GENERAL CONTROLS

### OPTIONS

**PRESETS** - This allows you to load predetermined sets of articulations affectionately called articulation sets (see General Overview Panel) quickly and easily to optimise your system quickly for essential articulations or to start building templates using empty “shells”.

**PURGE UNUSED** - This control keeps unloading any samples you are not using to keep your memory usage as low as possible.

**TRANPOSE** - Toggle this on and tweak the number to the right to transpose your instrument. Note this is not the same as tuning, the instrument will actually offset the samples to the selected pitch.

**CC MAPPED VEL(OCITY)** - Click this to control note velocity with the Dynamics slider. If a user has customised the dynamics slider, that same customised CC will control velocity now.

### ROUND ROBINS & LEGATO

**NO EXTRA FUNCTIONALITY(NEIGHBOURING ZONES)**- Next to this lies a pop-down menu with some amazing new functions:

- **“No extra Functionality”** - Is the standard default where round robins are used as they were intended.
- **“Neighbouring Zones”** - pulls from neighbouring zones, so for an ‘8RR’ instrument, you effectively cycle through up to 24 different sounding notes when pressing a key. It’s still just playing the one RR at a time, though giving you more of them. In legato mode this also alternates between 3 legato intervals to give a fake round robin.
- **“2x Round Robin With Skip”** - plays two RR simultaneously, so you get a thicker sound, it’s the equivalent of plopping two notes on top of each other in your DAW (and it drops the overall volume ~6db so that the levels remain the same but it just sounds thicker). NB THIS IS NOT AVAILABLE TO LEGATO TRANSITIONS. This plays the pairs and moves ahead by 2 RR. In this mode RR is effectively halved. e.g., if you press a note it would play RR1/RR2 then RR3/RR4 ,etc.
- **“Layer 2x Round Robins With No Skip”** - As above but this plays a pair but doesn’t move ahead by 2 so that RR isn’t halved. So if you press a note it would play RR1/RR2, then RR2/RR3, then RR3/RR4.

**ROUND ROBINS** - This refers to the number of round robins (multiple recordings of the same notes that cycle around as you repeatedly play a note) your instrument uses, the number can be dragged up and down (1-8) to save you memory.

**RESET FROM F0** - This enables you to control the round robin cycle (so it sounds identical every time you play) toggle on & play the key selected (default F0) to reset.

**RESET ON TRANSPORT** - As above but resets every time you press play! Genius!

**SHORT ARTICULATIONS RT** - This new option allows you to toggle whether staccato/tenuto/marcato notes have a release trigger that plays on release. This lets you tighten up staccatos or end marcatos/tenutos earlier than they were recorded.

## 5. EXPRESSION CONTROLS

We curated some of these for the general controls view, here is the full complement, dial these CCs into your midi controller for an infinite choice of emotional and human responses.

**DYNAMICS - CC#1** This slider displays and controls which dynamic layer is live. Also controlled via the modulation wheel.

**VIBRATO - CC#21** This mixes between vibrato and non, or senza vibrato.

**SPEED - CC#16** Controls legato interval speed. Great to use when playing the lines into your DAW for more responsive less laggy control. Dial back on playback for greater realism.

**INTENSITY - CC#15** This is a great way to vary and humanise the legato articulations. Dial it all the way up for a more pronounced emotional start to each note, dial it back for a more transparent transition.

**RELEASE - CC#17** Dialed in all the way, this helps blur the transitions when using long articulations in slow passages in a natural and musical way. Dial back for more focus and detail.

**TIGHTNESS - CC#18** We proudly cut our samples from the true beginning of the note, as the bow engages the string and the rosin begins to weave its magic. The net effect of this is laggy and sometimes very small inconsistencies in timing. Which we love! It Sounds real! But it’s not to everyone’s taste. This ingenious device allows you to tighten and loosen to your heart’s content. An excellent use of this is to dial it all the way to the right in order to play your part in. Once you’re happy, adjust to taste and put a negative delay in the track header of your DAW which is the same amount as the Tightness setting.

**EXPRESSION - CC#11** Displays the overall instrument volume (0-100%). Remember you can also trim your instrument volume with CC#7.

# THE OSTINATUM

Best used with short articulations, this ever evolving device can offer instant chaotic inspiration or be used to create scientifically designed rhythms, ostinati and arpeggiated sequences as well as shimmering tremolando effects.



## 1. SETTINGS

**MODE** - Selects how the Ostinatum will interpret your playing. Ostinatum will sequence a maximum of 10 notes (one for each of your fingers). It needs to arrange them into a note order "1-10" and this determines how it does that.

**OFF** - The default position Ostinatum remains dormant.

**ORDER PRESSED** - This will organise the notes in the order you pressed them.

**ASCENDING** - From bottom to top.

**DESCENDING** - From top to bottom.

**CONTROL KEYSWITCHES** - Allows you to set up a section of the keyboard that controls the state of the ostinatum. These keyswitches let you turn it off, or set the mode.

**SOLO KEYSWITCHES** - Allows you to dedicate a section of the keyboard to keyswitches that solo each ostinatum track. The first keyswitch turns all tracks on, the following keyswitches solo each individual track.

**CHORD MODE** - This ignores any note order and simply plays everything polyphonically, great for measured trem style effects.

## 2. RHYTHM COMPUTER

**NOTE MENU** - Click these to place a note into the computer at the length you desire. Click the trash can to delete, or choose a preset from the drop down on the right. The cog allows you further fine tuning and configuration tools.

**LENGTH** - This displays the note lengths in the sequence that you have selected from the Note Menu. Drag down here to create rest versions of the note length.

**KEY** - Under each note you can then select which key (displayed in real time in the Transport) this note is attached to. Scroll up and down to select.

**LEVEL** - Adjust these bars up and down to adjust the velocity levels of each notes, this will bring your rhythm sequence to life and provide you with all sorts of surprising syncopated accents.

**LOAD/ SAVE** - Allows you to store your previously made Ostinati.

## 3. PATTERN SELECTOR

With the Ostinatum machine, there's a drop-down on the rhythm computer allowing you to switch between (and create) up to 8 different patterns.

By default these layer on top of each other, but you can also configure them to be solo using either the Ostinatum track options:



Or using the 'solo keyswitch' option. With Solo Keyswitch, 9 new (customisable) keyswitches are added to the keyboard:



The very first one un-mutes all tracks so that they play together. The next eight solo each individual track respectively. When you press them, only the corresponding track will play.

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## APPENDIX A - RECOMMENDED TECH SPECS

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IF YOU PLAN TO USE THIS LIBRARY WITH THE FULL VERSION OF KONTAKT PLEASE MAKE SURE YOU HAVE THE LATEST VERSION OF KONTAKT 5 INSTALLED.

### RECOMMENDED SPEC:

The better your computer, the better the performance of any Spitfire module. But not to worry if you're not spec'd up to the hilt. All programs are provided with a set of parameters that enable you to dial back the CPU demands of any given patch. But moving forward, we're confident this module will keep your computer busy for many years to come!

We recommend a combination of high processor speeds, a good chunk of memory and a devoted SSD eSata, USB3, or Thunderbolt drive. The more memory you have, the less demand placed on your drive, and having a totally devoted drive gives you the chance to load less into memory and reduce load times. The higher the speed of your CPU, the more capable your computer will be to deal with some of the amazing, but complicated scripts we've written.

### PCs:

We recommend Windows 7 or later (latest Service Pack, 32/64 Bit), Intel Core Duo or AMD Athlon 64 X2, 4 GB RAM (8 GB minimum).

### MACs:

We recommend Mac OS X 10.10 or later (latest update), Intel Core 2 Duo, 4 GB RAM (8 GB minimum).

### DRIVES:

USB3, Thunderbolt, or eSata SSDs. Ask your dealer for drives that are suitable for "AV use". If you can afford an SSD drive, this will massively increase the power of your system. Instead of 7-9ms seek time, the usual seek time is <0.1ms. These are fast enough to run a patch 'Purged' of all its samples, and they can load on the fly as you play the notes. You can also reduce your sampler's "pre-load" buffer tenfold meaning you'll be able to load enormous orchestral palettes into a single machine.

### HOST:

The Kontakt 5 platform should work comfortably on most commonly found platforms and DAWs. As always make sure you're as up-to-date as you can afford! If your main DAW is not a newish machine, or has a limited spec, and you're planning on building or adding Spitfire to an already large orchestral palette, you could consider running your library independently of your DAW, either on your host computer (e.g. via Re-Wire) or on a slave device (e.g. via Midi or MOL). This will assist your loading times, and will allow your DAW to do what it does best, sort out all your note ons and note offs!

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## APPENDIX B - KONTAKT vs. KONTAKT PLAYER

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Kontakt Player is a free version of the Kontakt sample playback engine available to download:

<https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/downloads/>

It works with libraries that the developer has paid a license fee for. Essentially, you've bought this playback engine along with your library.

The Kontakt player gives you full access to all the sounds and all the editable parameters on the front panel. Also, unlike non-Player libraries, these libraries will also have a banner that appears on the Kontakt Libraries pane.

If you want to go deeper into editing you'll need a full version. As you will already own the free Kontakt player and have bought one of our 'player' libraries you will be eligible for a discount upgrade to Kontakt via the NI website. See here for more details:

<https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/pricing/crossgrade-offer/>

If the library you want to use is NOT a 'Player' library then you need to buy the full retail version of Kontakt.

Then you can also load 'non-Player' libraries like some of our other ranges, Spitfire LABS, Harp, Piano, Harpsichord, Solo Strings etc. Please note that non-Player library instruments will not appear on the Kontakt libraries pane and so can't be added as a library as Player libraries need to be. Instead, these libraries will simply need to be loaded via the Kontakt files browser or alternatively you can add the library as a favourite to the Kontakt Quick Load window.

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# APPENDIX C - ARTICULATION LIST

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## ALL-IN-ONE PATCHES:

- a - Violins 1 (8)
- b - Violins 2 (6)
- c - Violas (6)
- d - Celli (6)
- e - Basses (4)

## EXTENDED TECHNIQUES:

- a - Violins 1 (8) - Core techniques
- a - Violins 1 (8) - Decorative techniques
- a - Violins 1 (8) - FX
- b - Violins 2 (6) - Core techniques
- b - Violins 2 (6) - Decorative techniques
- b - Violins 2 (6) - FX
- c - Violas (6) - Core techniques
- c - Violas (6) - Decorative techniques
- d - Celli (6) - Core techniques
- d - Celli (6) - Decorative techniques
- d - Celli (6) - FX
- e - Basses (4) - Core techniques
- e - Basses (4) - Decorative techniques

## INDIVIDUAL ARTICULATIONS:

### A - VIOLINS 1 (8)

- a - Violins 1 (8) - Falls
- a - Violins 1 (8) - FX Gliss
- a - Violins 1 (8) - FX Grace Note Semitone
- a - Violins 1 (8) - FX Grace Note Tone
- a - Violins 1 (8) - FX Grace Note x2
- a - Violins 1 (8) - FX Grace Note x3 to Dom
- a - Violins 1 (8) - FX Grace Note x3 to Tonic
- a - Violins 1 (8) - FX Hairpin
- a - Violins 1 (8) - FX Phrases
- a - Violins 1 (8) - FX Scales
- a - Violins 1 (8) - FX Slide 4th to Tonic
- a - Violins 1 (8) - FX Slide 5th to Dominant
- a - Violins 1 (8) - Legato (Portamento)
- a - Violins 1 (8) - Legato (Slurred)
- a - Violins 1 (8) - Long CS Blend
- a - Violins 1 (8) - Long CS Sul Pont
- a - Violins 1 (8) - Long CS
- a - Violins 1 (8) - Long Flautando
- a - Violins 1 (8) - Long Harmonics
- a - Violins 1 (8) - Long Sul G
- a - Violins 1 (8) - Long Sul Pont
- a - Violins 1 (8) - Long Sul Tasto
- a - Violins 1 (8) - Long Super Sul Tasto
- a - Violins 1 (8) - Long
- a - Violins 1 (8) - Marcato Attack
- a - Violins 1 (8) - Runs
- a - Violins 1 (8) - Short Brushed CS
- a - Violins 1 (8) - Short Brushed
- a - Violins 1 (8) - Short Col Legno
- a - Violins 1 (8) - Short Harmonics
- a - Violins 1 (8) - Short Pizzicato Bartok
- a - Violins 1 (8) - Short Pizzicato
- a - Violins 1 (8) - Short Spiccato CS
- a - Violins 1 (8) - Short Spiccato
- a - Violins 1 (8) - Short Spiccato
- a - Violins 1 (8) - Tremolo CS Sul Pont
- a - Violins 1 (8) - Tremolo CS
- a - Violins 1 (8) - Tremolo Measured

- a - Violins 1 (8) - Tremolo Measured CS
- a - Violins 1 (8) - Tremolo Sul Pont
- a - Violins 1 (8) - Tremolo
- a - Violins 1 (8) - Trill (Major 2nd)
- a - Violins 1 (8) - Trill (Major 3rd)
- a - Violins 1 (8) - Trill (Minor 2nd)
- a - Violins 1 (8) - Trill (Minor 3rd)
- a - Violins 1 (8) - Trill (Perfect 4th)

### B - VIOLINS 2 (6)

- b - Violins 2 (6) - Falls
- b - Violins 2 (6) - FX Gliss
- b - Violins 2 (6) - FX Grace Note Semitone
- b - Violins 2 (6) - FX Grace Note Tone
- b - Violins 2 (6) - FX Grace Note x2
- b - Violins 2 (6) - FX Grace Note x3 to Dom
- b - Violins 2 (6) - FX Grace Note x3 to Tonic
- b - Violins 2 (6) - FX Hairpin
- b - Violins 2 (6) - FX Phrases
- b - Violins 2 (6) - FX Scales
- b - Violins 2 (6) - FX Slide 4th to Tonic
- b - Violins 2 (6) - FX Slide 5th to Dominant
- b - Violins 2 (6) - Legato (Portamento)
- b - Violins 2 (6) - Legato (Slurred)
- b - Violins 2 (6) - Long CS Blend
- b - Violins 2 (6) - Long CS Sul Pont
- b - Violins 2 (6) - Long CS
- b - Violins 2 (6) - Long Flautando
- b - Violins 2 (6) - Long Harmonics
- b - Violins 2 (6) - Long Sul G
- b - Violins 2 (6) - Long Sul Pont
- b - Violins 2 (6) - Long Sul Tasto
- b - Violins 2 (6) - Long Super Sul Tasto
- b - Violins 2 (6) - Long
- b - Violins 2 (6) - Marcato Attack
- b - Violins 2 (6) - Runs
- b - Violins 2 (6) - Short Brushed CS
- b - Violins 2 (6) - Short Brushed
- b - Violins 2 (6) - Short Col Legno
- b - Violins 2 (6) - Short Harmonics
- b - Violins 2 (6) - Short Pizzicato Bartok
- b - Violins 2 (6) - Short Pizzicato
- b - Violins 2 (6) - Short Spiccato CS
- b - Violins 2 (6) - Short Spiccato
- b - Violins 2 (6) - Tremolo CS Sul Pont
- b - Violins 2 (6) - Tremolo CS
- b - Violins 2 (6) - Tremolo Measured
- b - Violins 2 (6) - Tremolo Measured CS
- b - Violins 2 (6) - Tremolo Sul Pont
- b - Violins 2 (6) - Tremolo
- b - Violins 2 (6) - Trill (Major 2nd)
- b - Violins 2 (6) - Trill (Major 3rd)
- b - Violins 2 (6) - Trill (Minor 2nd)
- b - Violins 2 (6) - Trill (Minor 3rd)
- b - Violins 2 (6) - Trill (Perfect 4th)
- b - Violins 2 (6) - Trill (Perfect 4th)

### C - VIOLAS (6)

- c - Violas (6) - Legato (Portamento)
- c - Violas (6) - Legato (Slurred)
- c - Violas (6) - Long CS Blend
- c - Violas (6) - Long CS
- c - Violas (6) - Long Flautando
- c - Violas (6) - Long Harmonics
- c - Violas (6) - Long Sul C
- c - Violas (6) - Long Sul Pont
- c - Violas (6) - Long Sul Tasto
- c - Violas (6) - Long Super Sul Tasto
- c - Violas (6) - Long
- c - Violas (6) - Marcato Attack
- c - Violas (6) - Short Brushed CS
- c - Violas (6) - Short Brushed
- c - Violas (6) - Short Col Legno
- c - Violas (6) - Short Harmonics
- c - Violas (6) - Short Pizzicato Bartok
- c - Violas (6) - Short Pizzicato
- c - Violas (6) - Short Spiccato CS
- c - Violas (6) - Short Spiccato
- c - Violas (6) - Tremolo CS
- c - Violas (6) - Tremolo Measured
- c - Violas (6) - Tremolo Sul Pont
- c - Violas (6) - Tremolo
- c - Violas (6) - Trill (Major 2nd)
- c - Violas (6) - Trill (Minor 2nd)

### D - CELLI (6)

- d - Celli (6) - Falls
- d - Celli (6) - FX Gliss
- d - Celli (6) - FX Grace Note Semitone
- d - Celli (6) - FX Grace Note Tone
- d - Celli (6) - FX Grace Note x2
- d - Celli (6) - FX Hairpin
- d - Celli (6) - FX Scales
- d - Celli (6) - Legato (Portamento)
- d - Celli (6) - Legato (Slurred)
- d - Celli (6) - Long CS Blend
- d - Celli (6) - Long CS Sul Pont
- d - Celli (6) - Long CS
- d - Celli (6) - Long Flautando
- d - Celli (6) - Long Harmonics
- d - Celli (6) - Long Sul C
- d - Celli (6) - Long Sul Pont
- d - Celli (6) - Long Sul Tasto
- d - Celli (6) - Long Super Sul Tasto
- d - Celli (6) - Long
- d - Celli (6) - Marcato Attack
- d - Celli (6) - Short Brushed CS
- d - Celli (6) - Short Brushed
- d - Celli (6) - Short Col Legno
- d - Celli (6) - Short Harmonics
- d - Celli (6) - Short Pizzicato Bartok
- d - Celli (6) - Short Pizzicato
- d - Celli (6) - Short Spiccato CS
- d - Celli (6) - Short Spiccato
- d - Celli (6) - Tremolo CS Sul Pont
- d - Celli (6) - Tremolo CS
- d - Celli (6) - Tremolo Measured
- d - Celli (6) - Tremolo Measured Sul Pont
- d - Celli (6) - Tremolo Measured Sul Pont
- d - Celli (6) - Tremolo Sul Pont

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# APPENDIX C - ARTICULATION LIST (CONT.)

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## E - BASSES (4)

- e - Basses (4) - Legato (Portamento)
- e - Basses (4) - Legato (Slurred)
- e - Basses (4) - Long Flautando
- e - Basses (4) - Long Harmonics
- e - Basses (4) - Long Sul Pont
- e - Basses (4) - Long Sul Tasto
- e - Basses (4) - Long Super Sul Tasto
- e - Basses (4) - Long
- e - Basses (4) - Marcato Attack
- e - Basses (4) - Short Col Legno
- e - Basses (4) - Short Harmonics
- e - Basses (4) - Short Pizzicato Bartok
- e - Basses (4) - Short Pizzicato
- e - Basses (4) - Short Spiccato
- e - Basses (4) - Tremolo Measured (150bpm)
- e - Basses (4) - Tremolo Measured (180bpm)
- e - Basses (4) - Tremolo Sul Pont
- e - Basses (4) - Tremolo
- e - Basses (4) - Trill (Major 2nd)
- e - Basses (4) - Trill (Minor 2nd)

## LEGATO TECHNIQUES:

- a - Violins 1 (8) - Legato performance
- b - Violins 2 (6) - Legato performance
- c - Violas (6) - Legato performance
- d - Celli (6) - Legato performance
- e - Basses (4) - Legato performance

## OTHER PATCHES

- a - Violins 1 (8) - Economic Longs
- a - Violins 1 (8) - Economic Shorts
- a - Violins 1 (8) - Light resources
- a - Violins 1 (8) - Time Machine
  
- b - Violins 2 (6) - Economic Longs
- b - Violins 2 (6) - Economic Shorts
- b - Violins 2 (6) - Light resources
- b - Violins 2 (6) - Time Machine
  
- c - Violas (6) - Economic Longs
- c - Violas (6) - Economic Shorts
- c - Violas (6) - Light resources
- c - Violas (6) - Time Machine
  
- d - Celli (6) - Economic Longs
- d - Celli (6) - Economic Shorts
- d - Celli (6) - Light resources
- d - Celli (6) - Time Machine
  
- e - Basses (4) - Economic Longs
- e - Basses (4) - Economic Shorts
- e - Basses (4) - Light resources
- e - Basses (4) - Time Machine



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# APPENDIX D - MIC & MIX ACRONYMS

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## STANDARD ARRAY:

(Available as part of the standard product)

**T1 - Tree.** This refers to the “Decca” tree of three mics placed above the conductor’s podium. In the case of Studio Strings; 3 priceless vintage Neumann M50s. These are placed to give the ultimate sound of the band, the studio and are the default mic position that loads in with each patch.

## EXTENDED ARRAY:

(Available in Studio Strings Professional)

**C1 & C2 - Close.** A selection of valve mics placed for optimum focus close to the instruments. This mic control is great to add in for added definition and at times a bit of “rounding of sound”, in isolation it can be a way of achieving a more intimate or pop-music style sound.

**T1 & T2 - Tree.** This refers to the “Decca” tree of three mics placed above the conductor’s podium. In the case of Studio Strings; 3 priceless vintage Neumann M50s. These are placed to give the ultimate sound of the band, the studio and are the default mic position that loads in with each patch.

**A - Ambient.** A set of condenser mics placed high up in the gallery away from the band. This mic position gives a massive amount of stereo spread and room sound over the band. Great mixed in with the other mics but also ideal fed to your Ls & Rs speaker sends for true surround information.

**O - Outriggers.** A set of vintage mics placed wide apart to the left and right of the tree. These give a similar balance of room and band but with a broader stereo spread. The effect of this mic is somewhere between the tree and ambient mics.

**ST - Stereo Mic.** These are totally different mics in a totally different position to the tree (closer to ground level) and have a more direct and immediate sound than the tree.

**G - Gallery.** Three mics at the very furthest point from the band way up in the gallery. A true representation of Air Studios’ amazing ambience.

**CR - Close ribbons.** Placed next to the standard close mics but using a rarefied selection of vintage ribbon mics to add a warm and rounded tone.

## STEREO MIXES


(Available in Studio Strings Professional)

2 extraordinary mixes from Abbey Road engineer Simon Rhodes to save your system resources.



# APPENDIX E - UACC

With the development of Spitfire's BML Sable it was proving quite difficult to standardise how to access the ever-growing number of articulations contained within instruments and libraries. While they worked adequately, Keyswitches and CC32 were inconsistent between sections and instruments and it could prove a pain to do something as simple as substituting a Viola for a Violin section.

To address the problem, Spitfire developed UACC , a specification that hopes to standardise articulation control between instruments and libraries. UACC is turned on via the Keyswitch locking option (  ) and utilises the same CC as above (and can be customised identically). When UACC is activated you can change articulation by setting CC32 to specific values that correlate with different articulations. Here's the latest (v2) spec:



Long (sustain)	34	Detache	80	Synced - 120bpm (trem/trill)
1 Generic	35	Higher	81	Synced - 150bpm (trem/trill)
2 Alternative	36	Lower	82	Synced - 180bpm (trem/trill)
3 Octave				
4 Octave muted	Short		Phrases & Dynamics	
5 Small (1/2)	40	Generic	90	FX 1
6 Small muted	41	Alternative	91	FX 2
7 Muted	42	Very short (spicc)	92	FX 3
8 Soft (flaut/hollow)	43	Very short (soft)	93	FX 4
9 Hard (cuivre/overb)	44	Leisurely (stacc)	94	FX 5
10 Harmonic	45	Octave	95	FX 6
11 Tremolo/flutter	46	Octave muted	96	FX 7
12 Tremolo muted	47	Muted	97	FX 8
13 Tremolo soft/low	48	Soft (brush/feather)	98	FX 9
14 Tremolo hard/high	49	Hard (dig)	99	FX 10
15 Tremolo muted low	50	Tenuto	100	Up (rips/runs)
16 Vibrato (molto vib)	51	Tenuto Soft	101	Downs (falls/runs)
17 Higher (sultasto/bells up)	52	Marcato	102	Crescendo
18 Lower (sul pont)	53	Marcato Soft	103	Decrescendo
19 Lower muted	54	Marcato Hard	104	Arc
	55	Marcato Long	105	Slides
Legato	56	Plucked (pizz)		
20 Generic	57	Plucked hard (bartok)	Various	
21 Alternative	58	Struck (col leg)	110	Disco up (rips)
22 Octave	59	Higher	111	Disco down (falls)
23 Octave muted	60	Lower	112	Single string (Sul C/G/etc.)
24 Small	61	Harmonic		
25 Small muted				
26 Muted	Decorative			
27 Soft	70	Trill (minor 2nd)		
28 Hard	71	Trill (major 2nd)		
29 Hramonic	72	Trill (minor 3rd)		
30 Tremolo	73	Trill (major 3rd)		
31 Slow (port/gloss)	74	Trill (perfect 4th)		
32 Fast	75	Multitongue		
33 Run	76	Multitongue muted		

For example, turning on UACC and changing CC32 to 26 will change the current articulation to Legato - Muted. Setting it to 52 would change to Short - Marcato. You can set these manually in your DAW but it's much easier to utilise DAW functionality such as VST Note Expression, or a dedicate tablet app such as Lemur, TouchOSC, LiveControl, etc.

The advantages of UACC are that it's consistent between all supported libraries (ie. setting CC32 to 52 will change to Marcato regardless of the library or patch) and easily configurable on tablet apps such as Lemur. It remains consistent between updates (any product using v2 will have the articulations mapped to the above spec). It also takes up no space on the keyboard.

The disadvantages are that it's difficult to control for live playing (unless using a tablet) and it does not support articulation layering.

## UACC KEYSWITCH

UACC keyswitching is a new feature in Spitfire products and updates. It is a mixture of keyswitching and UACC to provide the advantages of both methods. When UACC Keyswitch is activated via the lock panel menu (  ) a single keyswitch is available. Using the UACC spec outlined above, this keyswitches velocity is used to switch articulation. 

For example pressing the keyswitch at velocity 70 would switch to the Trill (minor 2nd) articulation while pressing at velocity 56 would switch to Short Pizzicato. As with UACC, you can manually input these velocity values but it's easier to use your DAW or tablet app's functionality.

The main advantage of UACC KS over UACC is that you can layer articulations by overlaying the keyswitch's notes on the piano roll.

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## APPENDIX F - FAQs & TROUBLESHOOTING

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### Q: WHAT IS THE DIFFERENCE BETWEEN KONTAKT AND KONTAKT PLAYER?

See Appendix B.

### Q: HOW CAN I REDOWNLOAD A PRODUCT?

With the continuous improvements to our Spitfire App, we have incorporated the ability to reset your own downloads, be it the entire library or the most recent update!

This can easily be done via your Spitfire App. To reset both your entire library download or the latest update;

Open up the Spitfire App and log in with your account email and password.

- Select the download you wish to re-download
- In the toolbar under Library > Reset Download > Entire Download/Latest Update
- This will reset your whole download/your latest update

You can repeat this process for any of the libraries you own.

Note that there is a limit to how many times you can reset your downloads in a certain time frame. If you do exceed your reset limit please get in touch.

### Q: DIFFICULTIES IN DOWNLOADING / INSTALLING

Customers may find that they have some difficulties in the downloading process. If you find that you are having some trouble, please check the list below for possible causes.

- The formatting of your drive, if it is FAT32 this will cause errors, because there is a maximum file size with this format of 4GB and our download files will exceed this limit. To solve this problem, reformat your drive to a more modern format, or use a different drive. We recommend NTFS on PC and Mac OS Extended (journalled) on Mac.
- Free space on your hard drive, please allow at least double the space for the respective library. This is because your library is downloaded compressed, then uncompressed into a separate location, then the original is deleted. So briefly during install, there are two copies of the library on disk. To solve this problem use a drive with more space (the size you'll need during install is listed on the website page of the product you bought).

### OTHER ISSUES:

- Spitfire App freezes in the "Extracting" stage for hours. This may be because our libraries are often very large files, and this is the stage where the compressed files are extracted and placed in their final locations on the hard drive. There could be hundreds of GB of content to unpack, so it really can take hours. If you're unsure whether it has crashed or is simply extracting files, visit the installation folder you chose when you started the install. If everything

is working normally you'll see various files appearing in the folder (or one of its sub-folders).

- If you see a "Download interrupted" message, this may be caused by a change in IP, usually the case with people using a VPN, or people who for some reason started a download in one country and tried to resume it in another. In this case, please submit a support ticket and we can unblock you.
- If your download gets stuck and is continually cycling and not resuming, please get in touch with us, giving us as much detail as possible about your set up. It would be helpful if you can tell us: Your operating system, where you are downloading from (your country, and also whether you're at home or work), your ISP, and whether there are any proxy servers or firewalls between your computer and the internet.

### Q: I'VE LOST MY INSTRUMENT FILES.

In some cases, instrument files may get lost when transferring libraries from one place to another, or if an update has gone wrong. If this happens, the best way forward is to re-download the library in question. It will ensure you will get all of the content you are missing

### Q: I HAVE FAST INTERNET, WHY IS MY DOWNLOAD SLOW?

We have no direct influence on your actual download speeds, our libraries are hosted on Amazon S3 servers which are normally very quick but it may well be that at certain times of the day when traffic is particularly busy, your ISP may throttle your connection speeds.

We would advise you to leave your download running overnight as speeds should ramp up at less busy times. Our Spitfire App downloader aims to use as much of the available bandwidth as possible to give you the quickest possible speeds, and may take several minutes to reach its peak.

### Q: CAN I INSTALL ON MORE THAN ONE COMPUTER?

With our products you have two licenses. This means that you are allowed to download and install on two computers you own, say your main rig and your mobile rig. The best way to get your library on both of your machines is to copy it from one to another via an external HDD. It saves you from having to re-download the whole library again!

### Q: CAN I TRY BEFORE I BUY?

No - it is not currently possible to demo our products. If you go to our YOUTUBE CHANNEL you'll see many many walkthroughs containing detailed info about all our products -- you can hear them being played in real time with no smoke and mirrors!

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#### **Q: MY LIBRARIES ARE NOT SHOWING UP IN MY APP**

A handful of customers may find that when they log into their Spitfire App, some of their previous purchased products do not show up in the 'Installed' section or in the 'Download Ready' section either. It may be that you have purchased these under another email address. Checking other possible email addresses for your previous purchases may help to find these missing products. If this is not the case, and these missing products were purchased a few years ago, please create a support ticket telling us your account email address, and any serial numbers you may have to go with these missing products. Our support team can also merge one or more accounts together if you'd like to consolidate all your purchases in one place.

The more information, the quicker we can get you back up and running!

#### **Q: HOW DO I UPDATE MY PRODUCTS?**

The main premise of downloading our products is that our Spitfire App downloads into the folder you choose, so it is always good to choose the folder above where you want the download to go. The best file path for our products is something very simple, a long file path will cause errors as there is a character limit on how far the Spitfire App can read. We advise a file path of something along the lines of:

Samples Drive > Spitfire Audio - always point the downloader to the folder 'Spitfire Audio' (the folder above the library) for all downloads and updates.

When it comes to downloading / updating - if you have a folder called 'Spitfire Audio' always point the Spitfire App to the folder Spitfire Audio - never go into this folder and choose the actual library in question.

#### **Q: HOW DO I REDOWNLOAD THE LATEST UPDATE?**

With the continuous improvements to our Spitfire App, we have incorporated the ability to reset your own downloads. This can easily be done via your Spitfire App.

Open up the Spitfire App and log in with your account email and password.

- Navigate to the page of the product you wish to reset.
- Next to the "installed" icon is a cog wheel. Under this you have an option to "Reset". Choose "latest update".
- This will reset your latest update ready to install.

You can repeat this process for any other updates you wish. If you do not see the option to reset your download in your Spitfire App, we would advise downloading the latest version of the Spitfire App from [spitfireaudio.com/info/library-manager/](http://spitfireaudio.com/info/library-manager/).

#### **Q: I'VE BEEN WAITING AGES FOR MY DOWNLOAD LINKS...???**

We run all our orders through a fraud checking process. The automatic fraud check takes 20 minutes (but can take up to an hour during a very busy period, eg. Black Friday), but if your order gets caught at this stage, we run a manual order check, and this can delay the processing of your order for up to 24 hours (though this would be a rare and exceptional case).

You should however receive an order confirmation email IMMEDIATELY upon placing your order. This confirms that your order has successfully been logged in our system and that your payment was successfully taken. Please check your junk folders before contacting our support. The message will come from [do\\_not\\_reply@spitfireaudio.com](mailto:do_not_reply@spitfireaudio.com) if you'd like to add us to your whitelist.

#### **Q: CAN I DOWNLOAD ON A PC, THEN TRANSFER TO A MAC OR VICE VERSA?**

All of our libraries are compatible on both PC and Mac computers (as they run inside Kontakt). You can download all of our libraries on either PC or Mac and they will work if you need to transfer them across to the other operating system. We advise to do this by copying the library you want to move across to an external HDD and then copying it to your other machine.

#### **Q: 'SAMPLES MISSING' ERROR MESSAGES**

In some cases, samples files may get lost when transferring libraries from one place to another, or if an update has gone wrong. You may also get this error in some cases if you installed your library on a drive with just under the minimum necessary amount of space to install the library (remembering that you need DOUBLE the size of the final library to install successfully - see above). If this happens, the best way forward is to re-download the library in question. It will ensure you will get all of the content you are missing. For more information on how to re-download a product, please see the question above.

#### **Q: HOW TO BATCH RESAVE A LIBRARY?**

There are two main reasons to batch resave: Firstly it greatly speeds up the loading of patches once you have batch resaved them. Secondly, it can help you find missing samples and relink them to the patches so that you don't need to search every time you load a patch. Bear in mind that it can sometimes take a few attempts to batch resave, and if Kontakt crashes the first time you try, you could go into the instruments folder and batch resave a bit at a time -- go by sub folders for example, just to lessen the load on Kontakt.

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**Q: I WANT TO BUY A COLLECTION, BUT I ALREADY OWN ONE OR MORE OF THE PRODUCTS IN IT**

Our cart will intelligently deduct the proportional cost of any products you already own from the total price when you get to the checkout.

**Q: I'VE LOST MY SERIAL NUMBER FOR PRODUCT ACTIVATION**

Emails get misplaced and you might find that you are out of luck when you need to find a past serial number. The best place to find all of your serial numbers would be on the Spitfire Audio Website: <https://www.spitfireaudio.com/my-account/serial-numbers> Alternatively, log into your Native Instruments account here: <https://www.native-instruments.com/en/>, and traverse to the My Products, Serials, And Downloads section. Under there you will find all of your serial numbers, including your Spitfire Audio serial numbers. If you find that the serial number you are looking for is not there, please contact us with all of the relevant information.

**Q: I HAVE FOUND A BUG**

In some cases we can't squash them all and bugs shamefully make their way through. If you think you have found a bug, please contact us with all the relevant information;

- A description of the bug you have found
- A screencast (video) of the bug happening, or an audio example
- The exact patch name (or patches) in question and also the library giving us as much detail as possible will help us get to the bottom of the issue.

<https://spitfireaudio.zendesk.com/hc/en-us>

**Q: WHAT IS THE NCW COMPRESSED FORMAT?**

This is Native Instrument's new lossless compressed sample format – we have managed to reduce the sample data pool by around 55% and this also shows a benefit in streaming for you, along with reduced hard disk space required.

**Q: WHAT IS YOUR REFUNDS / RETURNS POLICY?**

If you have NOT completed the download / installation process, then we CAN refund / return your product, please contact support with your account email address and order number so we can handle this quickly. If you HAVE completed the installation process (even if you've not yet registered your serial number), please see our EULA in regards to why we do not accept refunds and returns. We can refund hard drive orders up until the point when the drive is dispatched from our office.

**Q: I'VE FORGOTTEN MY PASSWORD?**

If you have forgotten your password, please go to [spitfireaudio.com/my-account/login](https://spitfireaudio.com/my-account/login), and click 'Forgotten Password'. If at some point in the past you asked us to merge two or more accounts but have since forgotten, you MAY find that the forgotten password isn't working for the email address you asked us to merge FROM. In this case, please contact support with your name, and any email addresses you think we might know about, and we'll work out what has happened.

**Q: VEP - CONTROLS / GUI HAS DISAPPEARED!?**

You need to 'connect' the instance of VEP to your sequencer, and send it some MIDI - then the controls will reappear. Unless the instance of VEP is 'booted up' by actually connecting it, Kontakt will not complete the setup of the instrument which includes drawing the GUI.

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